

WHAT IS CLAIMED IS:

1. A spark plug, comprising:  
a partially cylindrical insulating element having a bore hole and a base part; and  
a central electrode located in an opening in the base part of the insulating element;  
wherein the insulating element and the central electrode are connected by at least one of an at least one metallic soldered connection and a metallic welded connection.

2. The spark plug according to claim 1, wherein the connection is located at an end of the central electrode further from the base part, an outer diameter of the central electrode being slightly smaller in a region of the connection than an inner diameter of the insulating element disposed at the same distance from a free end of the base part, the connection closing a gap between the central electrode and the insulating element substantially along a circumference of the central electrode.

3. The spark plug according to claim 1, wherein an inner diameter of the insulating element is slightly smaller than an outer diameter of the central electrode, not including a surrounding insulator core, at the same distance from a free end of the base part.

4. The spark plug according to claim 3, wherein a friction-locked connection is produced by an installation of the central electrode into the insulating element, the insulating element having a higher temperature than the central electrode at a time of the installation.

5. The spark plug according to claim 1, wherein a force is exerted on the central electrode in an axial direction in accordance with a spring-loaded element.

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6. The spark plug according to claim 5, wherein the spring-loaded element includes a contact pin.

7. The spark plug according to claim 6, wherein the contact pin is buckled at least once.

8. The spark plug according to claim 1, wherein the insulating element includes ceramic and wherein a surface of the ceramic is treated in a region of the connection so that a load capacity of the connection is elevated.

9. A method for producing a spark plug including a partially cylindrical insulating element having a bore hole and a base part and a central electrode located in an opening in the base part of the insulating element, the insulating element and the central electrode being connected by at least one of an at least one metallic soldered connection and a metallic welded connection, comprising the steps of:

providing one of the central electrode and an inside of the insulating element with one of a metallic soldering material and a metallic welding material;

inserting the central electrode into the insulating element; and

melting the one of the metallic soldering material and the metallic welding material.

10. The method according to claim 9, wherein the one of the metallic soldering material and the metallic welding material is provided in the providing step so that the connection substantially closes a gap between the central electrode and the insulating element along a circumference of the central electrode.

11. The method according to claim 9, wherein the inserting step includes the substep of producing a friction-locked connection with the insulating element having a higher

temperature than the central electrode at a time of the inserting.

12. The method according to claim 9, wherein the insulating element includes ceramic, the method further comprising the step of treating a surface of the ceramic in a region of the connection so that a load capacity of the connection is elevated:

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